

# EXPRESS5800/320F

## NEXT-GENERATION FAULT TOLERANT SERVER



### Servers for Mission Critical Applications

NEC Fault Tolerant (FT) servers provide an innovative solution to address planned and unplanned downtime for mission-critical IT infrastructure worldwide. The Express5800/320F server delivers exceptional uptime through dual modular hardware redundancy featuring Quad-Core Intel® Xeon® processors. These servers provide high availability through hardware redundancy in all components: CPU, memory, I/O, hard disk drives, and cooling fans.

The heart of this dual modular architecture is the GeminiEngine™ chipset, which is designed to enable “lockstep” processing. Lockstep enables the processing of the operating system and application software on both modules concurrently, eliminating potential downtime if a hardware component fails on either module.

### Key Benefits

- » Continuous availability for 99.999% system uptime
- » Affordable fault tolerance using Intel Xeon based technology
- » Hardware redundancy of all components

### Enhanced Processing Performance

The Express5800/320F FT server features Quad-Core Intel Xeon processors, achieving a 20% performance gain over existing fault tolerant servers.

### Virtualization Operating System Support

Virtualization software support allows for multiple guest operating systems to run in a single physical server, simplifying server consolidation and migration. Application failure risk may increase in virtual environments if the server hardware fails, because all of the applications in the virtual environment will be affected. With Fault Tolerant servers and their redundant modular architecture, the risk of these applications going down is eliminated due to the server's continuous computing capability.

### Reduction in Maintenance Time

The optional Active Upgrade™ splits the FT server into two independently running systems and allows one of the systems to run critical applications without interruption while Windows security patches and program updates are being installed on the other system.

<b>Logical Processor</b>	<b>Processor</b>	<b>320F-MR</b> Intel® Xeon® E5450-3.00GHz	<b>320F-LR</b> Intel Xeon E5405-2.00GHz
	<b>FSB</b>	1333MHz	
	<b>Package</b>	LGA771	
	<b>L2 cache</b>	6MB x2	
	<b>Chipset</b>	Intel 5000X Chipset + ESB2M + NEC FCPGA	
<b>Logical Memory</b>	<b>Type</b>	DDR2-667 FB-DIMM	
	<b>Support DIMM</b>	2x 1GB, 2x 2GB, 2x 4GB	
	<b>Sockets</b>	6	
	<b>Max</b>	24GB (6x 4GB)	
	<b>ECC</b>	Supported	
	<b>Chipkill</b>	Supported	
<b>Logical Hard Drive</b>	<b>Type</b>	3.5" SAS	
	<b>Supported drives</b>	SAS 15k: 73GB, 146GB, 300GB	
	<b>Max</b>	SAS: 3x 300GB (RAID-1)	
	<b>SPAN</b>	Optional	
<b>Logical LAN</b>	<b>Channel</b>	2x 1000BASE-T	
	<b>Controller</b>	ESB2	
	<b>Wake On LAN</b>	Supported	
	<b>AFT</b>	Supported	
	<b>PXE boot</b>	Supported	
<b>Video</b>	<b>Controller</b>	ATI ES1000	
	<b>VRAM</b>	32MB	
	<b>Resolution</b>	640x480 - 1280x1024	
<b>Peripherals</b>	<b>Optical disk</b>	Slim CD-RW/DVD Combo or DVD-RAM	
	<b>Floppy disk</b>	Optional (USB Floppy)	
<b>Logical I/O Slot</b>	<b>PCI-X</b>	1x 64 bit/133 MHz (MD2)	
		1x 64 bit/133 MHz (FH/FL)	
	<b>PCI-e</b>	1x 8 lane slot	
	<b>Hot-plug</b>	-	

<b>External Interface</b>	<b>LAN</b>	4x RJ-45	
	<b>USB2.0</b>	3x Type A	
	<b>Serial</b>	2x D-Sub 9pin	
	<b>Management</b>	Optional (2x RJ-45)	
<b>Device Bay</b>	<b>3.5 INCH H/S</b>	6x 1 INCH height	
	<b>5 INCH SLIM</b>	2	
<b>Logical Storage I/F</b>	<b>SAS/SATA</b>	8(2x 4i)x SAS or 4(1x 4i)x SATA II/300	
	<b>IDE</b>	1x UATA	
<b>Management</b>	<b>Baseboard</b>	Integrated	
	<b>Remote</b>	Optional F-RMC	
<b>Serviceability</b>	<b>Hot-swappable components</b>	CPU/IO Module, Hard drive	
<b>Security</b>	<b>Security key</b>	Front Key	
	<b>Chassis</b>	<b>Type</b>	4URackmount
<b>Power Supply</b>	<b>Dimension</b>	483 mm (W) x 762 mm (H) x 178 mm (D)	
	<b>Type</b>	650 W x 2	
<b>LED</b>	<b>Input</b>	100-240 VAC, 50/60 Hz	
	<b>Front</b>	Power, Disk Act., FT-Status, System-Status, Express Scope Monitor	
<b>Switch</b>	<b>Rear</b>	LAN Speed*, LAN Act.*	
	<b>Front</b>	Power	
<b>Regulatory</b>	<b>Rear</b>	Dump(NMI)	
	<b>Supported OS</b>		Windows® 2003 Server® R2 EE Windows 2008 Server EE (planned) Red Hat™ Linux™ 5.2 Advanced Platform (EM64T) VMware® ESX 3.02ft VMware™ ESX 3.2S (Special version for Fault Tolerant Servers)



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